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Lyophilised liposome prepn. for stabilising liposome(s) - comprises cyclic innulo-oligosaccharide and does not alter particle size after rehydration

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B(4-C2X, 10-E4C, 12-M6, 12-M11F) .3

Lyophilised liposome prepn. comprises a cyclic innulo-oligosaccharide.

USE

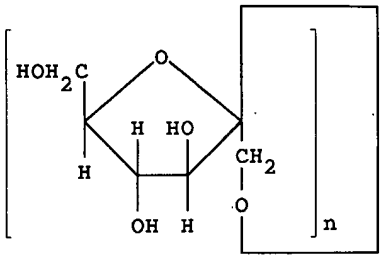
The prepn. can be used in the stabilisation of liposomes.

ADVANTAGE

The stable liposome lyophilised prepn. does not change the particle size after rehydration without losing the enclosed pharmaceutically effective ingredient.

PREFERRED METHOD

The liposome prepn. is partic. a β-2,1 bound cyclic structure with 2-8 mols of fructose of formula (I) and a polyhydric alcohol.



(I)

n = 2-8.

A liposome is mixed with (I) at 1:10-1, pref. 1:5-2, and a polyhydric alcohol (e.g. ethylene glycol, polyethylene glycol, polyvinyl alcohol and diethylene glycol, esp. glycerin) and lyophilised to give the desired prod.

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EXAMPLE

200 mg Dipalmitoyl phosphatidyl choline (DPPC) and a cholesterol mixt. in ratio 18:5 were dissolved in $CHCl_3$ and 2 ml aq. calcein was added and mixed 4 times at 60 °C for 1 min. every 15 mins. to give a multiple lamellar vesicle (MLV).

The MLV was filtered 10 times through a 100 nm pore size filter and gel filtered to give liposome particles. The particles at 20 mg/ml were mixed with 60 mg/ml cyclic innulo-oligosaccharide and 10 mg/ml glycerin and lyophilised to give the desired prod. The prod. was re-hydrated and recovered at 92%.(LV)
(4pp079DwgNo.0/0)

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